

I thank you respectfully for your time and consideration of the public voice. There are, we recognize, certain lines which science and medicine should not cross. Certain things will be universally recognized to be unethical; or, so nearly universally that we can safely assume the opinion of those who accept what the overwhelming majority rejects to be wrong. In cases of medical ethics, bioethics, and public policy, what can we mean by 'unethical' other than 'inhumane,' or violating the inherent dignity of humanity, already so battered in the world we experience? The question is whether this research is beyond that boundary. The additional question from a standpoint of public policy enactment in representative government is whether a proposal is acceptable to the people. So many want to determine the ethical value, positive or negative, of a path of action based on its outcomes. Outcomes are important, but many are also uncertain, indirect, dependent on unseen contingencies, impossible to plan for. Even from a consequentialist ethical system the ends of the proposal at hand have such a high degree of uncertainty that we simply cannot say "the ends justify the means." The question of ethics is better determined based on factors inherent to the act itself, not just possible futures. Specifically, the medical hopes of this research may never come to pass; the cited unintended outcomes of creating further moral dilemmas in that we cannot know what the stem cells may do, may well happen or not. But if there is something about the inherent direction of our undertaking that, after careful scrutiny, is clearly in the wrong direction, we are then best equipped to make an ethical judgment. Certainly scientific progress is not a good in itself, but undertaken for some purpose. The value of experimental science depends on what we are progressing toward. The expansion of the general body of human scientific knowledge is a sort of good in itself, sought "for its own sake." But if we reflect, this is because of the way that a human life is enhanced, lifted up, by virtue simply of the fact of knowledge of and reflection about the inexhaustible mysteries, complexities, beauty, and vastness of things in the cosmos that are in some way

greater than ourselves. But perhaps more than this we are then also led to marvel at our own greatness, being the only things we know of in the universe that are able to search out and wonder at the realities of physics, biology, astronomy, the workings of gravity. We fulfill and gratify a basic human potential by thus coming to realize the unspeakable dignity of the human mind itself, in its rational ability. In this way those sciences which are not strictly practical yet elevate the human spirit, or more accurately awaken us to its precious grandeur, and this is the real goal, the relevance or "practicality" of the speculative sciences. Medical science then has immense dignity as well, by virtue of the dignity of the human person. Longevity and health are not ultimate goals, but intermediate goals that serve the ability of the individual to reach his or her potential. The practical sciences, with medicine occupying an especially eminent place, are noble insofar as they assist the human, which is heir to the greatest value, which I have called dignity. If it is possible, then, in the course of experimental medical science, that a direction taken somehow violates human dignity, then it has become counterproductive, injurious to its own goal. Some value has been placed higher than human dignity - we have become inhumane - and such is the source of the moral abominations of history. I will argue that the action of lifting the current moratorium are nothing less. Let me make a few further points which are necessary before making my concluding argument:

- The most knowledgeable about the scientific details of the current issue is an invaluable source of the information needed to make specific judgments. Yet he or she may not be the most suited to make an ethical judgment. In other words, we must indeed make judgments based on facts and not just feelings, but scientific facts are not ethical judgments, and no sum of information can amount to an ethical judgment on its own. The experts in the material and experimental are not necessarily the experts in what it means to be human.
- When reviewing matters of experimental research, the most knowledgeable may also not be the most suited to consult for ethical opinion for the reason that

they, positioned at the very edge of their science and relishing its expansion enough to have gotten there, may very likely have no little vested interest in continuing. This is to say nothing of the pride and income associated with the avant-garde of the field of study. • Finally, perhaps the public just has not enough time to consider and voice concerns about something of such radical importance and immediately obvious controversy. They need time to let the data speak for itself, and then to speak for themselves. • Our visceral reaction to what has only ever been the subject of horror fiction (namely, human-animal hybrids, the uncertainty of their status relative to humanity, and the instinctive reaction to the reality referred to by the original, literal definition of 'monster' or 'monstrosity') is an important data point all its own. It is not the whole story, but it is an example of a factor that is more or less "unscientific" and yet necessary to confront and consider. Or, if you will, from a purely evolutionary lens, we can be sure that reactions of horror in other categories, when sufficiently universal and not just matters of individual taste, have been traced to important reasons for the survival of the species. The burden of the proof that our fear at doctored photos of human-animal hybrids as the creations of tabloids, or human-extraterrestrial hybrids in films of popular fiction - which is a fear that comes instantly, well before the subject is made out to be dangerous - is not indicative that the path we set out on is inevitably disastrous. Often distressingly combined irreconcilably with some level of compassion for it, most decide we would rather it never existed. We never experience the very same quality of horror at animals naturally occurring - our fearful reaction to an open-mouthed shark is to avoid it, not that it should never exist - but when we have done such things ourselves, our inescapable intuition is that this was a bad idea, and we feel that 'bad' is a groping, colloquial understatement. Allow me then to argue that it would be utterly inhuman to put ourselves in the position of a possible outcome in which we find ourselves the developers of a living thing only partly human. First of all, if as some biologists have proposed as one of the main concerns, it is

possible that we should have an animal with human consciousness and rational ability as the result of a human or partly human brain developing in a non-human body, we would then have what we would have to treat as a human, given that this human dignity inherent to us as explained earlier is due to our mind, our rational ability and free will. Then, this laboratory-born individual with human dignity, what will be done for it? It cannot become the object of further study without its own consent. We could not kill it, for having committed no crime - then we would be murderers, having ended a life that had everything that makes humans human. Then it must be freed, since it has the whole litany of human rights, and not treated as a second-class citizen. But who would adopt it? And would it ever be free of hatred? We would have produced a being that would have no place in the balance of the world ecosystem; more importantly, no other members of its species to give it any sense of stability, or us any assurance of its physical and psychological developmental expectations, interactions with the ecosystem or our social systems. This nauseating tree of questions would clearly extend for years of debate and uncertainty. The concern in this argument is not so much for our own dignity, which indeed in some sense seems violated by ourselves when we commit abominations, but the dignity of that which we have thrust into miserable existence. In no way do I mean that a person with a miserable life would be better off dead, though many feel that way. I simply mean to deliberately ensure a subhuman life to something that is human at the level of mind is the definition of moral abomination - it is the principle of acts of oppression, unjust war, and hatred. Were we to find such a neighbor to occur in nature, something with our level of consciousness, rational ability, and freedom of choice, it would be another matter entirely: humanity would face together the extreme challenges of the meeting of cultures and species - we would be compelled to. This would be a situation very ripe for defensiveness, misunderstanding, strife, panic, upheaval, fear-based hatred and bigotry, from both sides - and within the human race, the sharpest

and most vehement kind of polarization and argument - and any peaceful coexistence would be the narrower possibility, a kind of social miracle. But we would risk putting ourselves in such a situation, or even expose ourselves deliberately to it, even on a small scale? And most surely of all, even if a chimera of human consciousness was never produced, the very fact of tampering indiscriminately with humanity carries an agreement with the message that humanity is just another thing that can be manipulated in any way at any time for the sake of possible scientific advances. To any reflective person, this is clearly a step so violently counter to human dignity, which is the ultimate noble purpose of medical science and which alone can be the source of the dignity of medical science, that it must be opposed if anything unethical should be opposed. The proponents of such an incoherent and illogical reversal of the priorities of medicine would by "advancing" it actually bring science down on their own heads and those of humanity. Unthinking, they promote sending human dignity, that which alone makes the world worth living in, back into the primordial dirt. For these reasons, I cannot in any way support the lifting of the moratorium or restrain myself from opposing it vehemently herein. Please consider me an ally in our shared goal of upholding the quality of life for all humanity. Thank you for your consideration, as I respectfully remain, Matthew Hoffpauir